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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,424	01/24/2001	Toshiyuki Nakamura	1217-010064	5656

7590 06/06/2002

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EXAMINER

CUNEO, KAMAND

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 06/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

9744424

Applicant(s)

Examiner

Cuneo

Group Art Unit

2827

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 3/7/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 116-136 is/are pending in the application.
- Of the above claim(s) 121-134 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 116-120, 135, 136 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 1/24/01 is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

DETAILED ACTION

Election/Restriction

1. Applicant's election of Group 1, species f (figure 9), in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 121-122 are drawn to the embodiments of figures 11 or 13 and are not drawn to the elected species. Therefore, they are withdrawn from consideration. Upon allowance of a generic claim, any dependent claim complying with the provisions of section 112 will be rejoined and allowed as well.

Drawings

3. The drawings are objected to for the following reasons.

The figures are improperly cross hatched. All of the parts shown in section, and only those parts, must be cross hatched. The cross hatching patterns should be selected from those shown on page 600-81 of the MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP 608.02.

Additionally, figures 25-27 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Drawing corrections in compliance with MPEP 608.02(v) are required in response to this office action.

Specification

4. The use of the trademark Eval has been noted in this application (first occurrence at page 31, line 25). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Treatment of Claims Based on Language and Format

5. 35 USC 112, second paragraph, states:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 120 and 136 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims contain the Trademark "Eval." This term should be replaced with the generic term for the material.

Treatment of Claims Based on Prior Art

7. 35 USC 102 includes the following sections which state:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 116-120 and 135-136 are rejected under 35 USC 102(b) as being clearly anticipated by Baker et al. (US 3750278, hereafter Baker). See column 7 at line 25 through column 8 at line 35. For the materials see column 11 at lines 23 and 31-33.

9. Claims 116-119 and 135 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwaki et al. (US 6392164, hereafter Iwaki).

Iwaki discloses the board (100c or 100b) in the cover figure with conductor layers on the top and bottom, a filled via (105) which is a piece of copper, see column 3 at line 37.

The limitations regarding the method of filling the through hole with the punched metal is a process limitation in a product claim and is treated in accordance with MPEP 2113. As this process limitation results in a product structure that is the same as the product of Iwaki, the claims are anticipated by Iwaki.

Related Prior Art

10. The following references are considered pertinent to the present application.

Odaira et al. (5600103) and Yamamoto et al. (5736681) disclose boards with vias filled with a metal and in contact with a metal layer located on the board.

Closing

11. Any inquiries related to the examination of this application should be directed to Ex. K. Cuneo at (703) 308-1233 or her supervisor SPE David L. Talbott at (703) 305-9883. Inquiries of a general nature should be directed to the receptionist of Group 2800 at (703) 308-0956. The fax numbers for Group 2800 are (703) 308-7722 and 7724.

A handwritten signature in black ink, appearing to read 'K. Cuneo', with a stylized, cursive script.

K. Cuneo
Primary Examiner
June 3, 2002